# REMEDIAL ACTION REPORT WILLOW STREET AND WILLOW STREET NORTH PCB REMEDIATION PROJECT United Technologies Corporation Pratt & Whitney East Hartford, CT

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Prepared for

UNITED TECHNOLOGIES CORPORATION One Financial Plaza Hartford, CT 06101

Prepared by

LOUREIRO ENGINEERING ASSOCIATES, INC. 100 Northwest Drive Plainville, Connecticut

An Employee Owned Company

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## EXECUTIVE SUMMARY

# WILLOW STRET NORTH REMEDIAL ACTION REPORT UNITED TECHNOLOGIES CORPORATION

United Technologies Corporation (UTC)/Pratt & Whitney Division retained Loureiro Engineering Associates, Inc. (LEA), to design and perform the remediation of polychlorinated biphenyl (PCB) contaminated soil of areas between and below Willow Street and Willow Brook Pond at the UTC/Pratt & Whitney manufacturing facility in East Hartford, Connecticut. The project was initially undertaken on a voluntary basis to address the presence of contaminated soil that have been previously identified and proximate to areas previously remediated in a manner consistent with the Connecticut Remediation Standard Regulations (RSRs). The remedial action is no longer considered voluntary as during the agency approval period a Resource Conservation and Recovery Act (RCRA) Part B permit requiring site wide corrective action was issued. The remediation is a final remedy pursuant to the RCRA corrective action obligations and the Toxic Substance Control Act (TSCA).

The following report has been prepared in accordance with the Connecticut Department of Environmental Protection (DEP) approved Remedial Action Work Plan and Request for Variance Engineered Control for Polluted Soils (RAWP/RFV), and the requirements of Condition 20 and 21 of the approval provided by the Unites States Environmental Protection Agency (EPA) in a letter dated February 24, 2006. The report presents data supporting the attainment of the remedial action objectives for the project. The remediation activities were initiated on March 30, 2006 and were completed on July 27, 2006. Final restoration activities continued until August 11, 2006.

The overall remedial action objective was to physically remove from the site, via excavation and off-site disposal, all soil and sediment containing total PCB concentrations in excess of 25 mg/kg and then install a geotextile and soil cap (engineered control) over the entirety of the project limits as presented in the EPA and DEP approved RAWP/RFV and illustrated on Drawing 2-1. Specific areas of the cap were constructed with paved roadway surface or crushed rock surface for area of the cap located below Willow Street or along the embankment so the ponds, respectively. For the areas along the perimeter of the engineered control, the additional remedial action objective was to meet the RDEC for PCBs for soils within 4-feet of the final grade, the Industrial/Commercial Direct Exposure Criteria (IDEC) for PCBs for soils located in inaccessible locations and the GB PMC for soils above the seasonal high water table. All remedial action objectives were met during the course of the project.

The remedial action objectives also included the implementation of two institutional controls to ensure the long-term protectiveness of the remedy. The institutional controls consist of 1) an Environmental Land Use Restriction (ELUR) to ensure the affected area will not be used for residential purposes and to prohibit excavation and 2) a fence around the entire project area, exclusive of the roadway, to preclude access to Willow Brook and Willow Brook Pond. At the time of this report, the perimeter fence is in place and a draft ELUR is being submitted to the Commissioner of DEP as Appendix A of this report.

Initially, it was anticipated that the total volume of soil and sediment to be excavated and disposed of off the Site would be approximately 16,500 cubic yards, which was estimated to be

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roughly equivalent to 19,800 tons (estimated at 1.2 tons per cubic yard). It was also estimated that the excavation and off-site disposal activities would be completed in July of 2006, with final restoration, establishment of vegetation, and reopening of the Willow Street roadway to be performed by August 2006. Upon completion of the remediation activities, 25,900 tons (23,557,000 kilograms), or approximately 18,100 cubic yards of contaminated soil and concrete were excavated and disposed of off the site.

Following the completion of excavation and demolition activities, the entire site was restored. The site restoration involved the installation of engineered controls over the remaining soil, restoration of the landscape and roadway, and restoration of the Willow Brook Culvert.

The permits and approvals issued by the DEP Permitting, Enforcement & Remediation Division contain specific requirements for various activities that extend beyond the construction period. The mandatory post-remediation activities for this project include monitoring and maintenance of the engineered controls, groundwater monitoring, and recording of the necessary land use restrictions and demonstrating financial assurance for the engineered control maintenance and monitoring activities. These post-construction activities are underway: the draft of an ELUR for the approval of the Commissioner of the DEP has been prepared, the implementation of the groundwater monitoring program is underway, and the demonstration of financial assurance for this project will be submitted, under separate cover, concurrent with the annual financial assurance demonstration for the adjacent Willow Brook/Willow Brook Pond project.

